

Work Order ID 51982

September 11, 2009 9:50:55 AM



Page 1

Item ID: D3822-3KGY

Accept



Setup Start



Revision ID: C

Item Name: Vertical Tunnel, Aft Center-Grey

Stop



Start Date: 09/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/21/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: *PL*

Date: *09-9-11*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

100

0.00



HandThermo

Memo

0.00

Hand Finishing Thermoforming

1-Cut Sheet to required Blank size

M111807
BB 09/15/09
X2

110

0.00



Thermoform

Memo

0.00

Thermoforming Machine

1-Machine Set-Up
2-Pre-heat Tool to required temp.
3-Thermoform as per Dwg and Folio #FTA027 using tool DT9072
Dwg Rev: *S*
Folio Rev: *S*

BB 09/15/09
X2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3822-3KG4 PAR #: _____ Fault Category: Prod-Thermoforming NCR: Yes No DQA: ✓ Date: 09.10.05
 Resolution: Accepted Disposition: USE-AS IS QA: N/C Closed: ✓ Date: 05.10.05

NCR: <u>51982</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09/09/21	150.	Trim at top of part does not match diag. RC: Human error.	CP 09.09.21 per DS/042	Acceptable to cut corner width @ 0.125 0.13". This corner doesn't affect load tests performed	BB 09/09/21	S 09/09/24	CP 09.09.21 per DS/042	S 09/09/24

NOTE: Date & initial all entries

Work Order ID 51982

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Page 2

Item ID: D3822-3KGY

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Revision ID: C

Item Name: Vertical Tunnel, Aft Center-Grey

Stop



Start Date: 09/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/21/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC2- Inspect parts off machine FAJ/FAIB

0.00



QC

Memo

0.00

Quality Control

Visually inspect part for proper formation and texture

BB 09/17/09

X2.

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

=> S05/09/04

(X2) 4 OK 09/09/09

140

0.00



HandThermo

Memo

0.00

Hand Finishing Thermoforming

1-Trim to finished dimensions as per Dwg

BB 09/23/09

(X2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 51982

September 11, 2009 9:50:55 AM



Page 3

Item ID: D3822-3KGY

Accept



Setup Start



Revision ID: C

Item Name: Vertical Tunnel, Aft Center-Grey

Stop



Start Date: 09/11/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/21/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

Complete FAI document

BB 09/23/09
(X2)

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) 8 on 09/24

(X2) ✓

170

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

19/09/08 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

September 11, 2009 9:50:55 AM

Page 1

Work Order ID: 51982



Parent Item: D3822-3KGYRevC



Parent Item Name: Vertical Tunnel, Aft Center-Grey

Start Date: 09/11/2009

Required Date: 09/21/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MKYD6185S.080-P3- 52068		Purchased	No			100	sf	907.6732	5.2526			



Kydex steel grey

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

907.6732

111807

907.6732

M 111807

BB 09/23/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 51982
SHOP COPY		
Description: Vertical Tunnel, Aft Center		Part Number: D3822-3KIV/KGY
ENGINEERING		
Inspection Dwg: D3822	Rev: C	Page 1 of 1

UNCLASSIFIED
SUBJECT TO AMENDMENT
WITHOUT NOTICE

FIRST ARTICLE INSPECTION CHECKLIST

NO. 51982

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: BB

Date: 09/16/09

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.050	Min	.072	✓			
0.020	Min	.062	✓			
0.035	Min	.049	✓			
0.4	Min	.125	✓			

Measured by: BB

Date: 09/16/09

Audited by: S

Date: 09/15/09

Prototype Approval:

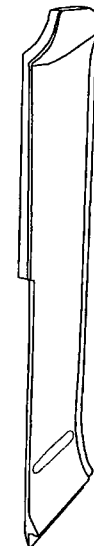
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Date:

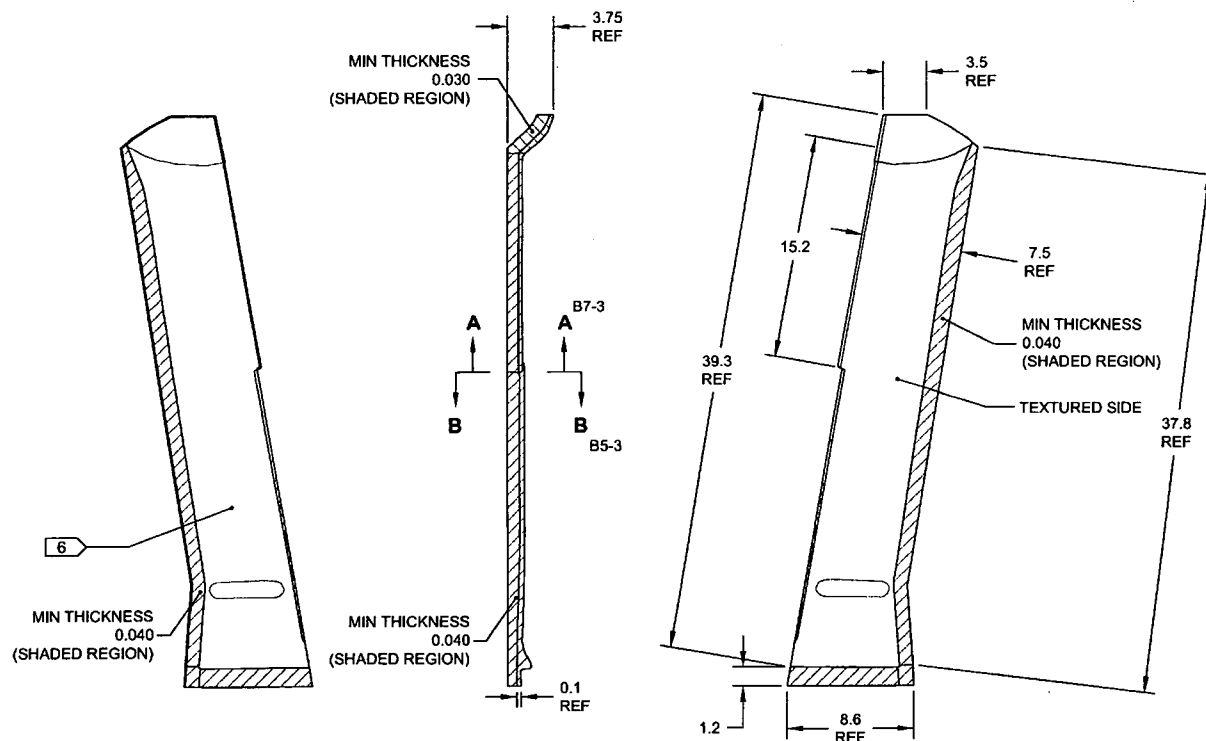
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Rev	Date	Change	Revised by	Approved
A	09.07.29	New Issue	KJ	

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 51982



RELEASED
[Signature]



D3822-1 VERTICAL TUNNEL, LH
 (BELL 206 A/B)

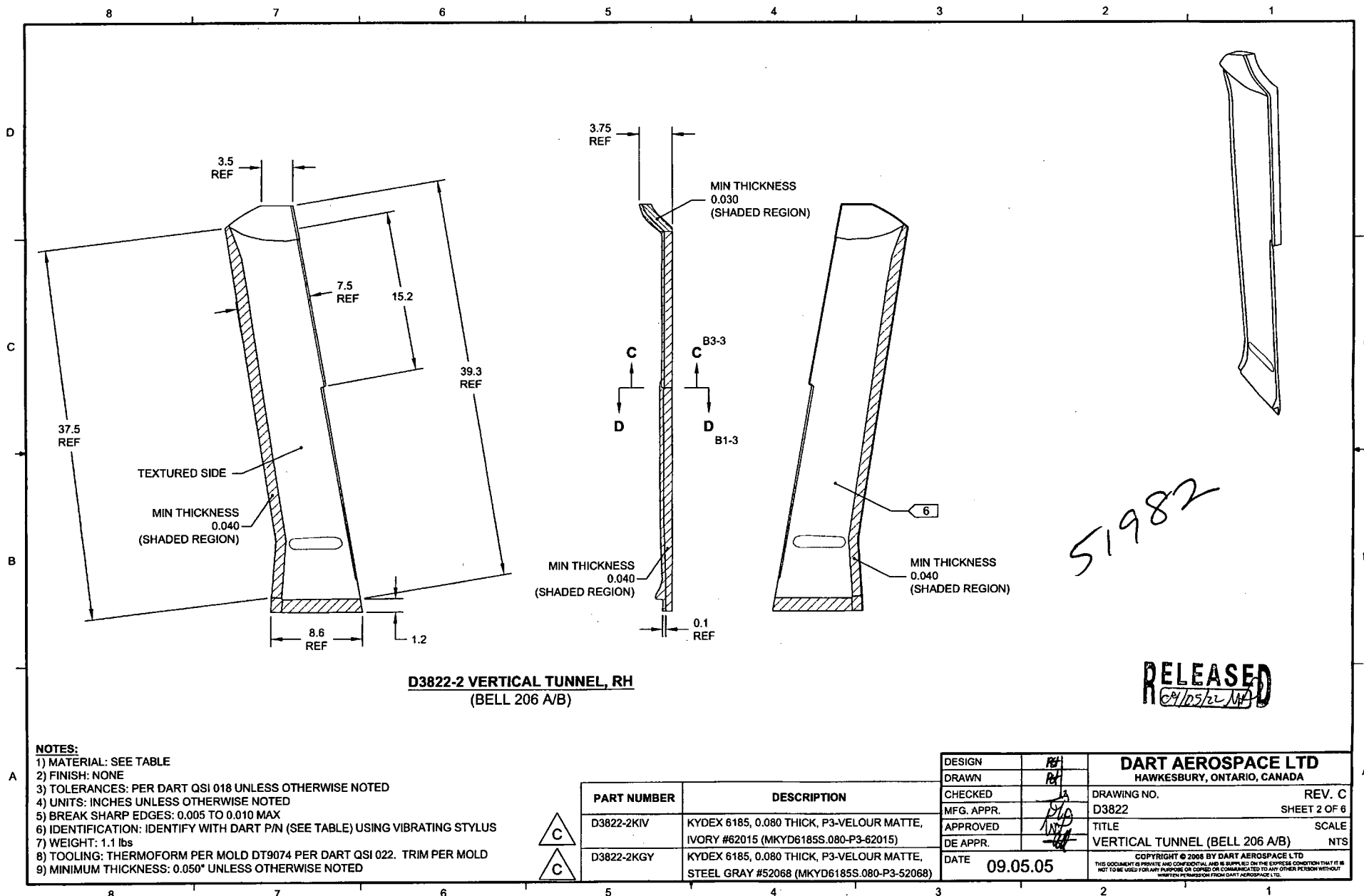
NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 1.1 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9073 PER DART QSI 022. TRIM PER MOLD.
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED



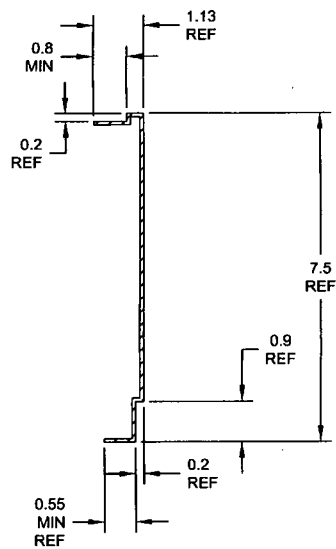
PART NUMBER	DESCRIPTION
D3822-1KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-1KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

C	ADD STEEL GRAY COLOUR OPTION, ADD IVORY P/N'S D3822-1/-2/-3/-5/-7(KIV) AND ADD STEEL GRAY P/N'S D3822-1/-2/-3/-5/-7(KGY) (ZN A5-1, A5-2, A5-4, A5-5, A5-6)	PH	09.05.05
B	37.8 WAS 38.8 (ZN C8-4); MODIFY TOP OF -3 AND ADD VIEW J (ZN A3-4); INCREASE JOGGLE ON -3 (ZN C8-4); UPDATE VIEW F (ZN A1-4); REASON: TO IMPROVE FIT OF D206-781-151 KIT	PH	09.02.09
A	NEW ISSUE	PH	08.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>		
MFG. APPR.	<i>[Signature]</i>		
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>	DRAWING NO. D3822 TITLE VERTICAL TUNNEL (BELL 206 A/B) REV. C SHEET 1 OF 6 SCALE NTS	
DATE	09.05.05	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

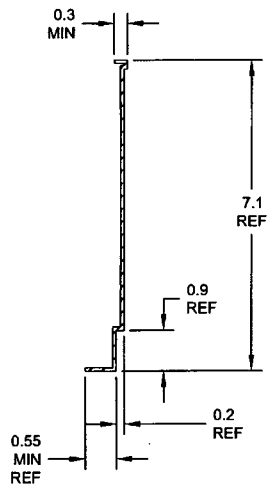


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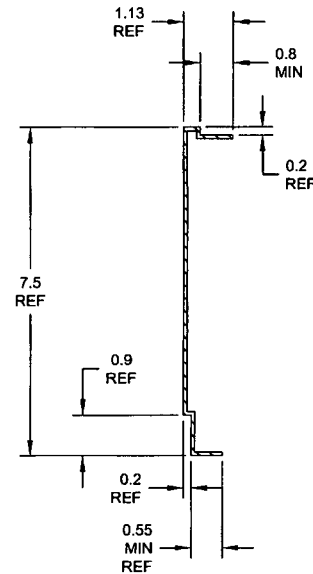
D
C
B
A



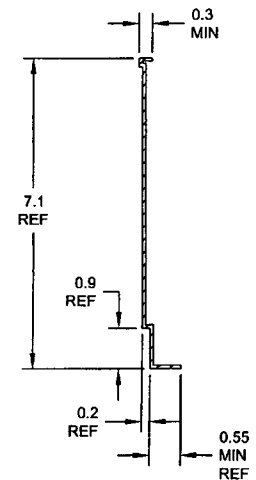
SECTION A-A C6-1



SECTION B-B C6-1



SECTION C-C C4-2



SECTION D-D C4-2

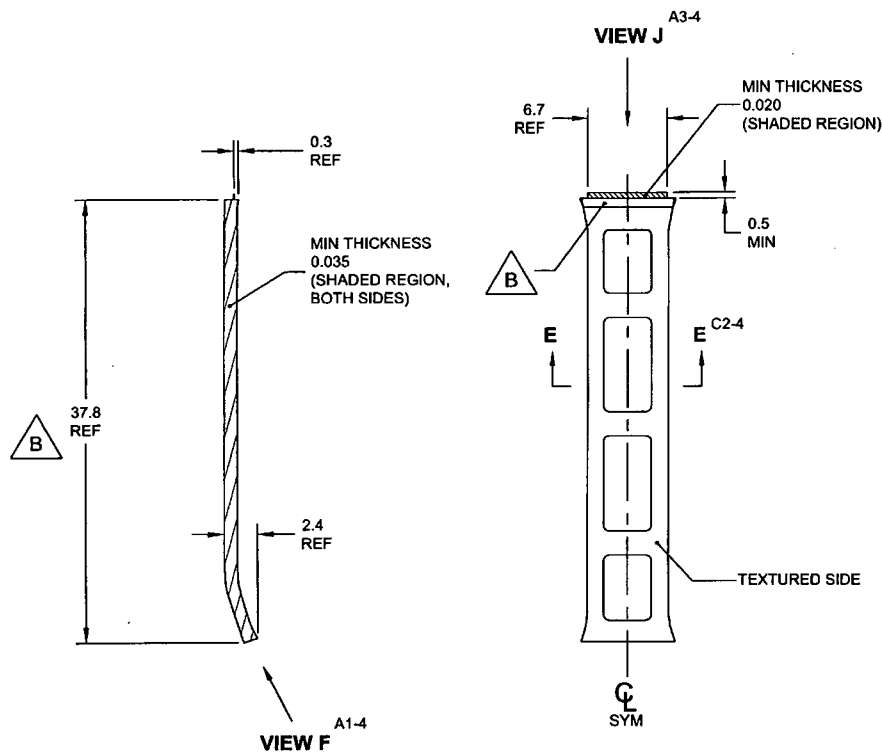
51982

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09/05/05

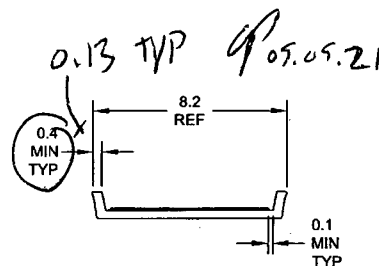
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DRAWN	RA	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RA	DRAWING NO.	REV. C
MFG. APPR.	RA	D3822	SHEET 3 OF 6
APPROVED	RA	TITLE	SCALE
DE APPR.	RA	VERTICAL TUNNEL (BELL 206 A/B)	NTS
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8 7 6 5 4 3 2 1

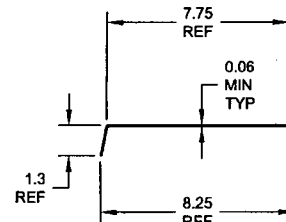
8 7 6 5 4 3 2 1



D3822-3 VERTICAL TUNNEL, AFT CENTER
(BELL 206 A/B)



VIEW J
SCALE 2X



VIEW F
SCALE 2X
(ROTATED 90° CW)

NOTES:

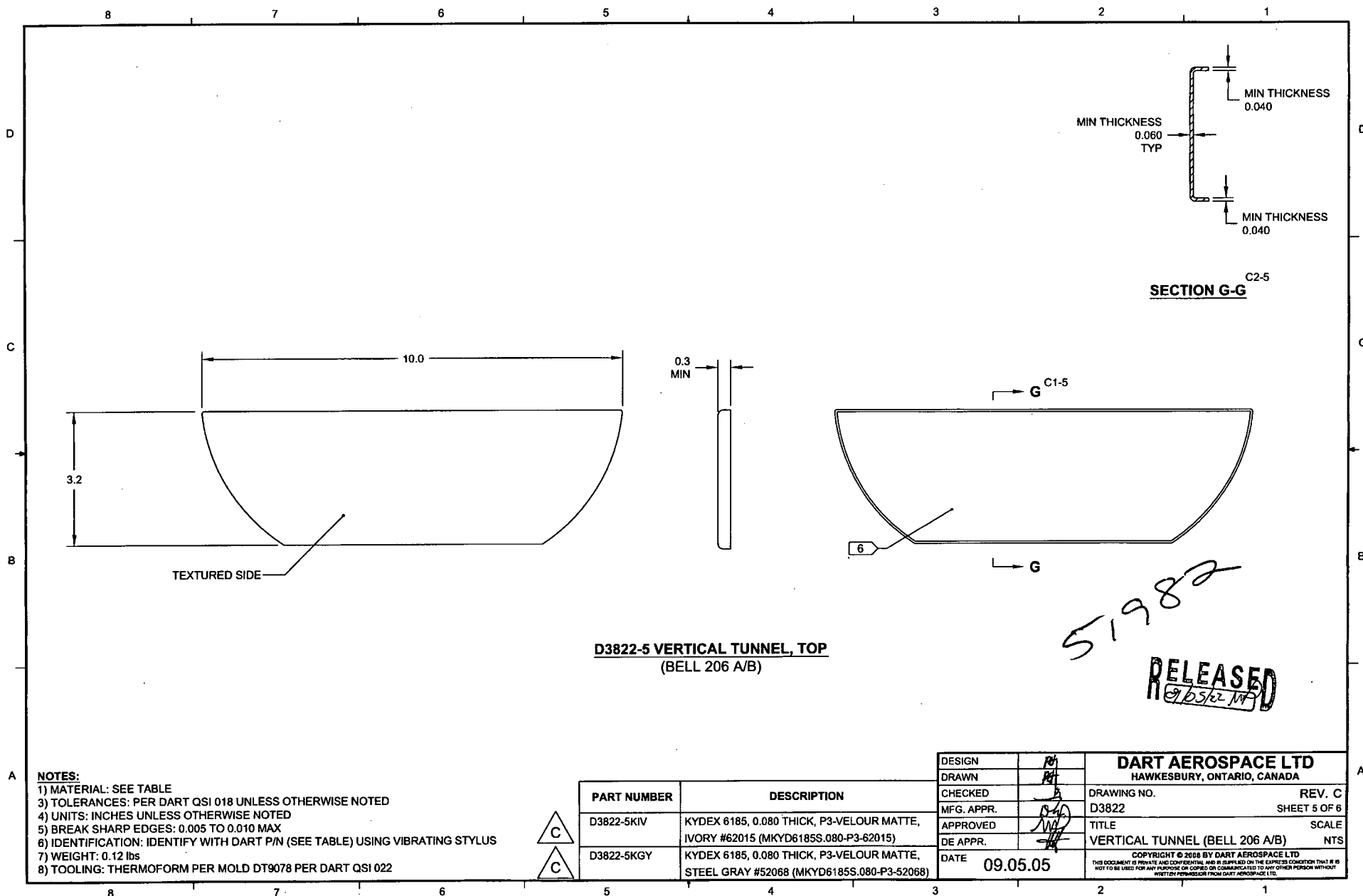
- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 1.1 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9072 PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED

PART NUMBER	DESCRIPTION
D3822-3KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-3KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	DART AEROSPACE LTD
DRAWN	HAWKESBURY, ONTARIO, CANADA
CHECKED	DRAWING NO. D3822
MFG. APPR.	REV. C
APPROVED	SHEET 4 OF 6
DE APPR.	SCALE
DATE	09.05.05
	TITLE
	VERTICAL TUNNEL (BELL 206 A/B)
	NTS

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8 7 6 5 4 3 2 1



NOTES:

- 1) MATERIAL: SEE TABLE
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) UNITS: INCHES UNLESS OTHERWISE NOTED
- 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 5) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 6) WEIGHT: 0.12 lbs
- 7) TOOLING: THERMOFORM PER MOLD DT9078 PER DART QSI 022

PART NUMBER	DESCRIPTION
D3822-5KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-5KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PA	DART AEROSPACE LTD
DRAWN	PA	HAWKESBURY, ONTARIO, CANADA
CHECKED	PA	DRAWING NO. REV. C
MFG. APPR.	PA	D3822 SHEET 5 OF 6
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8 7 6 5 4 3 2 1

D

MIN THICKNESS 0.040 MIN THICKNESS 0.040

0.20
0.15
2.0
0.4 REF
0.3 REF
0.3 REF

5.9
H
17.00 MIN
TEXTURED SIDE
H^{B1-6}

D

C

C

B

B

D3822-7 VERTICAL TUNNEL, LOWER
(BELL 206 A/B)

SECTION H-H^{B3-6}

51982

RELEASED
09/05/22

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) WITH VIBRATING STYLUS
- 7) WEIGHT: 0.36 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9396 PER DART QSI 022
- 9) MINIMUM THICKNESS: 0.060" UNLESS OTHERWISE NOTED



PART NUMBER	DESCRIPTION
D3822-7KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-7KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PA	DART AEROSPACE LTD	
DRAWN	PA	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PA	DRAWING NO.	REV. C
MFG. APPR.	PA	D3822	SHEET 6 OF 6
APPROVED	PA	TITLE	SCALE
DE APPR.	PA	VERTICAL TUNNEL (BELL 206 A/B)	NTS
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8 7 6 5 4 3 2 1